

## **IN THE CLAIMS:**

Please amend the claims, as follows:

Claims 1-14 (canceled).

Claim 15 (currently amended): Method for coating weldable plastic and plastic composite substrates (12) with a polar plasma-polymerised layer with a thickness (d) in the nanometer range of between 1 to 100 nm, having multifunctional properties with long-term stability, wherein the process gas contains at least one each of a hydrocarbon compound, which may be substituted, and at least one inorganic gas, comprises coating

(a) in a first zone or stage with process gases which contain at least one hydrocarbon compound, at least one hydrocarbon compound with nitrogen-containing or nitrogen- and oxygen-containing functional groups and/or at least one nitrogen-containing or one nitrogen- and oxygen-containing inorganic gas, and

(b) in a second zone or stage with nitrogen-free process gases which contain at least one hydrocarbon compound, at least one hydrocarbon compound with oxygen-containing functional groups and/or at least one oxygen-containing inorganic gas.

Claim 16 (previously presented): Method according to claim 15, wherein coating is carried out at a process pressure (p) of  $10^{-3} \leq p \leq 1,000$  mbar.

Claim 17 (previously presented): Method according to claim 15, wherein coating is carried out at a process pressure (p) of  $0.1 \leq p \leq 500$  mbar.

Claim 18 (previously presented): Method according to claim 15, wherein coating is

carried out with process gases, which contain, as organic components, hydrocarbon compounds with up to a maximum of 8 C-atoms, and, as inorganic components, oxygen, nitrogen, hydrogen, carbon dioxide, carbon monoxide, nitrogen oxides, ammonia, at least one halogen and/or at least one noble gas.

Claim 19 (previously presented): Method according to claim 15, wherein at least one of a lower and upper layer (14, 16) is deposited with additional silicon-containing process gases.

Claim 20 (currently amended): Method according to claim 15, wherein coating is carried out with a process gas which contains aliphatic, alicyclic and/or at least one aromatic hydrocarbon compounds, ~~preferably~~ with functional polar groups, ~~such as hydroxyl-carbonyl-, carboxylic acid-, carboxyl ester-, amine-, imine-, amide- and/or conjugated nitrile groups.~~

Claim 21 (currently amended): Method according to claim 19, wherein the ~~nitrogen-containing or nitrogen- and oxygen-containing~~ lower layer (14) contains nitrogen and oxygen and is applied with a first plasma source, and the ~~oxygen-containing~~ upper layer (16) contains oxygen and is applied with a second plasma source, or the ~~notrogen or nitrogen and oxygen containing~~ lower layer (14) and the oxygen containing upper layer (16) are applied from the same plasma source with process gases fed in at various zones or alternating process gases.

Claim 22 (currently amended): Coated substrate (10) with at least two multifunctional layers (14, 16) deposited by means of plasma polymerisation, and made of hydrocarbon compounds, comprising a plasma-polymerised polar layer (14, 16) with a thickness (d) in the nanometer range of between 1 to 100 nm, the plasma-polymerised layer comprises a nitrogen-containing lower layer (14) applied to the substrate (12), and a nitrogen-free, oxygen-containing polar upper layer (16) applied to the substrate.

Claim 23 (currently amended): Coated substrate (10) according to claim 22, wherein the nitrogen-containing or nitrogen- and oxygencontaining lower layer (14) has a proportion of 40 to 90% of the total layer thickness (d) and the nitrogen-free, oxygen-containing polar upper layer (16) has a proportion of 60 to 10% of the total layer thickness (d), ~~wherein the layer thickness is between 1 to 100 nm.~~

Claim 24 (previously presented): Coated substrate (10) according to claim 23, wherein the nitrogen/carbon and/or the oxygen/carbon ratio present in the plasma-polymerised polar layer (14, 16) made of substituted hydrocarbon compounds is in the range of 0.3 to 0.8, and in the lower layer (14), the nitrogen/carbon ratio is in the same range.

Claim 25 (currently amended): Coated substrate (10) according to claim 23, wherein the polar upper layer (16) has a carbon/oxygen ratio of 0.2 to 0.6 ~~and a permanent surface tension of preferably at least 50 mN/m.~~

Claim 26 (currently amended): Coated substrate (10) according to claim 22, wherein the substrate is ~~welded~~ weldable to a plasma-polymerised polar layer (14, 16).

Claim 27 (previously presented): Coated substrate (10) according to claim 22, wherein the substrate forms a layer (14, 16) for packaging.

Claim 28 (previously presented): Coated substrate (10) according to claim 27, wherein the packaging is for food.

Claim 29 (previously presented): Coated substrate (10) according to claim 27, wherein the substrate forms a protective layer against gases, additives and liquids.

Claim 30 (new): Method according to claim 20 wherein the functional polar groups are hydroxyl-carbonyl, carboxylic acid -, carboxyl ester-, amine-, imine-, amide- and conjugated nitrile groups.

Claim 31 (new): Method according to claim 25 wherein the polar upper layer (16) has a permanent surface tension of preferably at least 50 mN/m.